

Remarks

Claims 1-32 are pending in the application. With regard to the rejections of the claims, Applicants respectfully submit that the amendments above and the discussion of the cited art below establish the patentability of claims 1-32.

Objections to the Specification

The disclosure was objected to as including an incorrect reference, in paragraph 0032, to a "tubular body" rather than the appropriate "stud 18." Applicants thank the Examiner for pointing out this error, and have corrected the error with the amendment above.

Objections to Claims

Claim 19 was objected to as having an informality that is addressed by the amendment above. The phrase "a threaded end being the threaded end receiving..." has been reduced to "a threaded end receiving..." as suggested in the Office Action.

No new matter has been entered by these amendments. Applicants respectfully request reconsideration and withdrawal of all grounds for objection to the specification and claims.

Claim Rejections under 35 U.S.C. §102

(a) Claims 1-6, 8, 10-14 and 22-32 were rejected under 35 U.S.C. §102(b) as being anticipated by Buchanan¹.

The instant Action asserts that Buchanan's sleeve 1, threaded mounting element 20, and chuck 8 disclose all of the limitations of independent claim 1. Applicants respectfully disagree.

Claim 1 recites,

A wire attachment assembly, comprising:

a collar including a center aperture dimensioned to receive a portion of a wire, a threaded portion, and a tapered internal recess;

a cylindrical member including a threaded end engaging the threaded portion of

¹ U.S. Patent No. 2,463,144 issued 1 March 1949 to S.N. Buchanan

the collar; and
a tapered wedge disposed between the collar and cylindrical member, and
including a center aperture dimensioned to receive the portion of the wire
and a groove extending along the length of the wedge such that when the
cylindrical member and collar are screwed together the tapered internal
recess of the collar compresses the tapered wedge about the portion of the
wire.

Buchanan's chuck or gripping member 8 is composed of multiple segments 15. (col.1, ll. 41-44.) The tapered wedge of the presently claimed invention is comprised of a *longitudinally grooved tapered wedge* that deforms or crimps around the wire to attain the compressive gripping action ([0009, 0032]), as opposed to Buchanan's multiple segments which grip by displacement towards one another about a cable. Thus, Applicants respectfully submit that Buchanan does not disclose claim 1, or claims 2-5 and 8 that depend from claim 1.

Claims 2-3 have been amended to distinguish the *hexagonally shaped outer surface* of the present invention's shoulder, that allows assembly and secure tightening with a standard wrench, from the holes of Buchanan's system that are only grippable by a spanner wrench. (col. 1, ll. 39-40)

With respect to claim 4, the Action asserts that Buchanan's element 20 includes a *center recess dimensioned to receive a portion of the wire*, however, col. 2, lines 13-23 describe element 20 as having a cup-shaped housing for spring 26 and spacing or positioning member 38, rather than as a wire-receiving recess.

With respect to independent claim 10, the Action asserts that Buchanan discloses *tensioning*. Applicants respectfully disagree that any *wire tensioning* is taught or suggested by Buchanan that *adjusts the distance of the wire attaching means from the support surface*. In order to clarify this point, Applicants have amended claim 10 to recite,

10. *A wire attachment and tensioning device, comprising:*
a rigid body having a threaded end;
means for attaching a portion of a wire to the rigid body in a fixed connection;
and

a tensioning assembly rotatably attached to a support surface and including a threaded end to receive the threaded end of the rigid body such that rotating the tensioning assembly adjusts the distance of the portion of the wire attaching means from the support surface without affecting the fixed connection between the rigid body and the wire.

As described in the instant specification [0013, 0026, 0033], the function of the claimed tensioning assembly is independent from the means for attaching the wire to the rigid body. That is, the tensioning assembly can be rotated to bring the wire attaching means closer to the support surface, *i.e.* increasing the "tension" on the wire, without affecting the connection made between the wire and the rigid body. Buchanan, as well as Scotti², are devoid of any teaching or suggestion of such a mechanism.

Further, the Action asserts that Buchanan's chuck 8 is the equivalent of the *wire attaching means* of the presently claimed invention. However, Buchanan's apparatus can only secure a cable by utilizing chuck 8 in conjunction with sleeve 1 and element 20. It is this sleeve 1 that the Action then states is the equivalent of the presently claimed *rotatably attached tensioning assembly*. These are recited as distinct elements in claim 10, and Buchanan's elements 1, 8, and 20 together are not rotatably attachable to a support surface (element 20 is statically connectable to a support surface.) Chuck 8 and sleeve 1 merely are components of an assembly for attaching cable 7 to element 20. It may be necessary to "rotate" sleeve 1 to secure a cable to element 20, but any further rotation will have the undesired consequence of deforming the cable and/or loosening the connection between cable 7 and element 20. This is in contrast to the presently claimed invention, wherein rotating of the tensioning assembly functions to make the connection between the wire and the surface more taught or loose, as desired. Thus, Applicants respectfully submit Buchanan fails to teach or suggest the limitations of claim 10, as amended, and claims 11-28 and 31-21 which incorporate claim 10's limitations through dependency.

Claim 13 has been amended to include the limitation similarly added to claims 2-3 above.

With respect to claim 14, the instant Action asserts that the *means for locking the position of the tensioning assembly with respect to the wire attachment means* is disclosed by Buchanan's spring 26, however Buchanan states at col. 2, ll. 50-54, that "spring 26 then plays a minor part, if

² U.S. Patent No. 4,627,762 issued 9 December 1986 to Marino D. Scotti.

any, in this locking action, the principal or sole part played by the spring being to assist in the positioning of the parts during assembly." First, as noted above, Buchanan does not teach or suggest a *tensioning mechanism*, and certainly not one distinct from a *wire attachment means* as required by claim 14. Applicants respectfully suggest that the Action impermissibly strains to find teaching of two distinctly claimed mechanisms in one set of Buchanan components.

With respect to claim 22, the instant Action asserts that tapered sleeve 1 comprises a *cylindrical member*, however Buchanan's sleeve is clearly frustoconically shaped, and its purpose in Buchanan's cable attachment mechanism would be defeated if it were cylindrically shaped. This distinction highlights the differences between the claimed *tensioning assembly* and *wire attaching means*. Buchanan's sleeve, given its tapered shape, may be useful in a cable attaching mechanism (in conjunction with chuck 8 and element 20), however it would render any wire tensioning assembly based upon the rotation of components relative to one another inoperable with, as noted, the undesired effect of wire deformation or disconnection.

With respect to claim 23, Applicants note that in rejecting claim 10, the Action cites to Buchanan's element 20 as the *rigid body having a threaded end receiving the tensioning assembly*, but element 20 does not have a *second threaded end engaging the threaded portion of the collar* as required by claim 23. Buchanan's apparatus is simply missing a rigid body envisioned by the presently claimed invention, such as body 5 described in paragraphs [0025-0029] and illustrated in Figure 1 of the instant application, which is a component of a rotation based tensioning assembly and which is connectable to a wire attachment means.

In light of the foregoing, Applicants respectfully submit that Buchanan fails to teach or suggest all of the limitations of independent claims 1 (as originally filed) and 10 (as amended), and therefore those claims, as well as dependent claims 2-6, 8, 11-14 and 22-32 are patentable over the cited art.

(b) Claims 1-6, 8, 29 and 30 were rejected under 35 U.S.C. §102(b) as being anticipated by Scotti.

With respect to claims 1-6, the description of the deficiencies of Buchanan are equally applicable, as the two disclosures are nearly identical in terms of the subject matter they respectively disclose relevant to the claimed invention. Scotti discloses, as does Buchanan,

multiple chuck-like elements **10** that resist longitudinal displacement but are capable of radial displacement toward one another to grip a cable or rope (Abstract), unlike the presently claimed single *tapered wedge* that operates by longitudinal displacement to *compress the tapered wedge about the wire*. Scotti's elements **10** do not have a *groove extending along the length of the wedge* and would not be capable of gripping the cable individually. Thus, it is respectfully submitted that independent claim 1, and claims 2-6, 8, 29 and 30 dependent therefrom are patentable over Scotti.

(c) Claims 10-14, 31 and 32 were rejected under 35 U.S.C. §102(b) as being anticipated by Anderson³.

As an initial matter, Applicants respectfully indicate that Anderson was published less than a year before the 17 March 2004 filing date of Applicants' application. Applicants reserve the right to investigate the possibility of filing a declaration under 37 C.F.R. § 1.131 "swearing behind" the 28 February 2003 effective filing date of Anderson to preclude its use as a primary or an auxiliary reference.

With respect to independent claim 10, the Action cites Anderson's rod **14** as being equivalent to the claimed *rigid body*, cable attachment **12** and longitudinal passage **13** as the *means for attaching the wire to the rigid body*, and, again, rod **14** and turn member **16** as the *tensioning assembly rotatably attached to the support surface*. As noted above, claim 10 has been amended to include the clarifying limitations that the wire and rigid body are *attached in a fixed connection*, which clearly distinguishes the presently claimed invention from Anderson's apparatus. Anderson's rod **14** is neither rotatably attached to the hull nor attached in a fixed connection to the cable **13**. Rather it is in a fixed connection with the hull and attached rotatably to the cable only by means of turn member **16** and the bearing block mechanism (components **18-22** and **26**.) Thus, Anderson fails to teach or suggest the limitations of amended claim 10, and through dependency, claims 11-14 and 31-32.

Additionally, with respect to claims 11-13, the Action cites to longitudinally extending central aperture **17** as the equivalent of a *hole for turning the tensioning tool* (claim 12) and a *shoulder having a hexagonally shaped outer surface* (claim 13, as amended.) Applicants

indicate that Anderson describes the function of aperture **17** not for rotating turn member **16** (there is no suggestion of aperture **17**'s use for this purpose), but rather (as recited in Anderson's claim 2) to a permit visual observations of an end of rod **14** with respect to a scale in the turn member.

In this light, Applicant respectfully requests reconsideration and withdrawal of these grounds for rejecting claims 10-14 and 31-21.

Claim Rejections under 35 U.S.C. §103(a)

(a) Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over Scotti in view of Anderson, however claim 7 has been canceled, obviating this ground for rejection.

(b) Claim 9 was rejected under 35 U.S.C. §103(a) as being unpatentable over Scotti in view of Burtelson⁴, however claim 9 has been canceled, obviating this ground for rejection.

(c) Claims 15-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Buchanan⁵ in view of McCown⁶.

Claims 15-21, through dependency from claim 10, as amended, include the limitations described above that Buchanan fails to teach or suggest. More specifically, McCown is relied upon for its disclosure of a base plate **1** and threaded swivel **6,8**. However, McCown fails to teach or suggest the *tensioning assembly* limitations missing from the disclosure of Buchanan. Neither Buchanan nor McCown disclose *adjusting the distance of the wire attaching means from the support surface*.

The operation of the claimed tensioning assembly is independent from the means for attaching the wire to the rigid body. That is, the tensioning assembly can be rotated to bring the wire attaching means closer to the support surface, *i.e.* increasing the "tension" on the wire,

³ U.S. Patent Application No. 10/377,278, published 26 September 2003, naming inventor Malcolm John Anderson.

⁴ U.S. Patent No. 3,895,879 issued 22 July 1975 to Frederick W. Burtelson.

⁵ The Action sets forth on Page 7 a §103 rejection over the combination of "Anderson in view of McCown", but then discusses Buchanan - Applicants will assume Buchanan was intended as Anderson is discussed in the subsequent §103 rejection.

without affecting the connection made between the wire and the rigid body. Neither Buchanan nor McCown, alone or in combination, teach or suggest these elements.

The other issues noted in the discussion above of Buchanan are equally applicable here, as McCown provides little to no additional disclosure with respect to the *wire attaching means* and *rotatably attached tensioning assembly* of the present invention as recited in amended claim 10.

With respect to claims 15-21, McCown's threaded swivel and base plate can also be distinguished from those of the presently claimed invention and considered inappropriate for combination with the Buchanan apparatus on the following bases: (i) base plate 1 has a large opening 10 allowing insertion of the rounded head 6 from the front surface - such a connection would be inappropriate and perhaps even dangerous in railing embodiments; (ii) as described in col. 2, ll. 42-50, McCown's swivel end must not rotate during use, which is assured by tightening wing nut 13 on thread 7 into fix the position of upward member 5; and (iii) the upright support must be detachable. Each of these aspects is diametrically opposed to the operation of the rotatable, threaded swivel of the presently claimed invention.

In Applicants' system, once a swivel is inserted through the mounting plate from the underside, it is threaded into the lower end of a tensioning assembly's cylindrical member and locked, either by a locking compound, swaging or a left-hand thread together. While McCown's system must avoid rotation at all costs, since the suspended lamp would fall out or become detached. In Applicants' apparatus, rotatability is to be preserved, or else tensioning assembly would not function properly. Buchanan's apparatus would not be operable with a swivel (i.e., wire deformation would result).

(d) Claims 15-22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Anderson in view of McCown.

Claims 15-22, through dependency from claim 10, include the limitations described above that are missing (both explicitly and inherently) from the disclosure of Anderson. More specifically, McCown is relied upon for its disclosure of a base plate 1 and threaded swivel 6,8. However, McCown fails to teach or suggest the limitations that the *wire and rigid body are*

⁶ U.S. Patent No. 3,652,049 issued 28 march 1972 to Claude A. McCown.

attached in a fixed connection, which clearly distinguishes the presently claimed invention from Anderson's apparatus, alone or in combination with McCown. Anderson's rod 14 is neither rotatably attached to the hull nor attached in a fixed connection to the cable 13. Rather it is in a fixed connection with the hull, and although McCown teaches a swivel connection, it has been indicated that it is not a rotatable connection.

The remainder of the discussions of Anderson and McCown above are incorporated herein by reference, and establish the patentability of claims 15-22 over Anderson which the limited contribution of McCown's disclosure does not affect.

(e) Claims 23-28 were rejected under 35 U.S.C. §103(a) as being unpatentable over Anderson in view of Scotti.

The discussion above of the shortcomings of Anderson relative to claim 10, from which claims 23-28 depend, are incorporated here by reference. As noted above, claim 10 has been amended to include the clarifying limitations that the wire and rigid body are *attached in a fixed connection*, which clearly distinguishes the presently claimed invention from Anderson's apparatus. Anderson's rod 14 is neither rotatably attached to the hull nor attached in a fixed connection to the cable 13. Rather it is in a fixed connection with the hull and attached rotatably to the cable only by means of turn member 16 and the bearing block mechanism (components 18-22 and 26.) Scotti's disclosure lacks a *tensioning assembly* altogether and, thus, does not cure the missing disclosure of Anderson. Thus, it is respectfully submitted that claims 23-28 are patentable over the combination of Anderson and Scotti.

For at least the reasons discussed above, Applicants respectfully submit that claims 1-6, 8, and 10-32 are patentable over the cited art. Applicants respectfully request reconsideration and withdrawal of all outstanding rejections and/or objections.

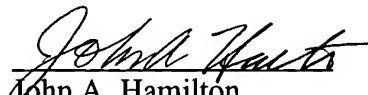
Although no fees are believed required for consideration of this paper, please charge any underpayment of fees to or credit any overpayment of fees to Deposit Account No. 03-2410, order 6623-119.

If the Examiner has any questions, please call Applicants' Attorney, John A. Hamilton at (617) 854-4000.

Appl. Ser. No. 10/802,445
Atty. Docket No. 6623-119
Response to Office Action of 22 June 2005

Dated: September 22, 2005

Respectfully submitted,

By: 
John A. Hamilton
Reg. No. 48,946
Attorney for Applicants

6623-119_RespA_092205